STEREO CASSETTE DECK WITH DOLBY NR SYSTEM

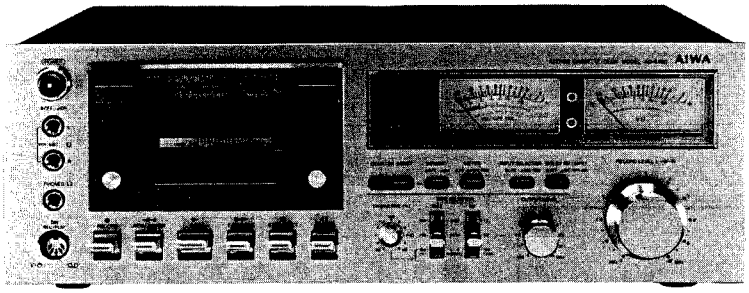
MODEL AD-6550EE, UK

AIWA®

[SERVICE MANUAL]

ISO

Set using ISO screws



DATE OF ISSUE 26/7/1977

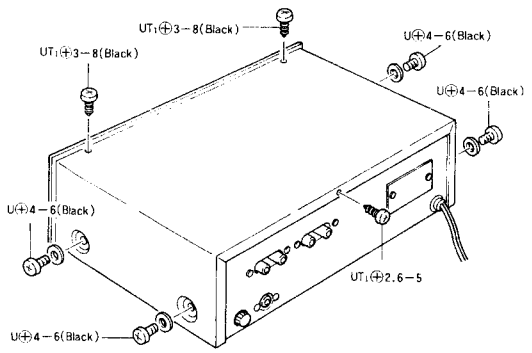
SPECIFICATIONS

Semiconductors:	4 IC's, 45 transistors, 35 diodes & 2 LED's
Power source:	AD-6550EE: AC 110~120 V/220~240 V (switchable) 50/60 Hz AD-6550UK: AC 120 V/240 V (switchable) 50/60 Hz
Power consumption:	10 W
Dimensions:	420(W) x 150(H) x 330(D) mm
Weight:	7.5 kg
Track system:	4-track 2-channel stereo
Tape speed:	4.76 cm/sec. ±1%
Wow & flutter:	0.1% (According to DIN 45 500 Blatt 8)
Automatic shut-off action time:	4 ±1 sec.
Pinch roller pressure:	375 ±30 g
Take-up torque:	50 ±10 g-cm
FF & rewind torque:	125 ±25 g-cm
FF & rewind time:	Less than 95 sec. (w/C-60 cassette)
Playback output: (TTA-161)	1.05 ±0.05 V (LINE/DIN)
Playback noise:	Less than 4.5 mV (LH) Less than 3.0 mV (Fe-Cr, CrO_2)
Rec./pb output: (400 Hz 0 VU)	0 VU ±0.5 dB (LINE/DIN)
Rec./pb distortion: (400 Hz 0 VU)	Less than 2.0% (LH) Less than 1.5% (Fe-Cr) Less than 3.0% (CrO_2)
Rec./pb S/N: (400 Hz 0 VU) (**Un-Weighted**)	More than 43/45 dB (LH, DOLBY OFF/ON) More than 45/48 dB (Fe-Cr, DOLBY OFF/ON) More than 45/48 dB (CrO_2, DOLBY OFF/ON)
Channel separation:	More than 28 dB (at 1 kHz 0 VU)
Cross talk:	More than 65 dB (at 1 kHz 0 VU)
Erasing ratio:	More than 60 dB (400 Hz +10 VU)
Bias frequency:	100 kHz ±10 kHz
Frequency response:	LH tape, 20~15 kHz (—10 dB) 30~13 kHz (±3 dB) Fe-Cr tape, 20~17 kHz (—10 dB) 30~15 kHz (±3 dB) CrO_2 tape, 20~17 kHz (—10 dB) 30~15 kHz (±3 dB) (at Dolby off, Rec./pb)
Motor:	38 pulse FG servo motor
Head:	Ferrite guard head (FGH)
Input:	MIC: Max. input semsitivity 0.3 mV (200 Ω ~ 10 kΩ suitable) LINE IN: Max. input sensitivity 50 mV (More than 50 kΩ) DIN: Max. input sensitivity 0.1 mV/kΩ (3 kΩ)
Output:	LINE OUT: Standard output level 0.775 V (0 VU) Optimum load impedance more than 50 kΩ DIN: Standard output level 0.775 V (0 VU) Optimum load impedance more than 50 kΩ PHONES: 3.4 mV (+3 VU) Load impedance 8 Ω

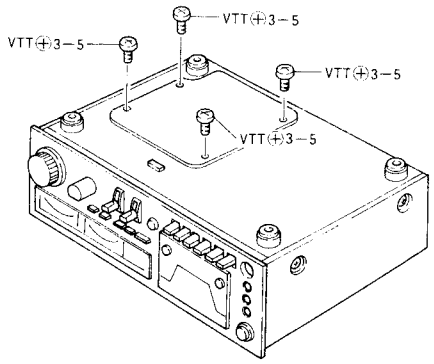
- Specifications and external appearance are subject to change without notice due to product improvement.
- Dolby Noise Reduction System is licensed from Dolby Laboratories Incorporated.
- The name "Dolby" and the "Double D" symbol are trademarks of Dolby Laboratories Incorporated.

DISASSEMBLY INSTRUCTIONS

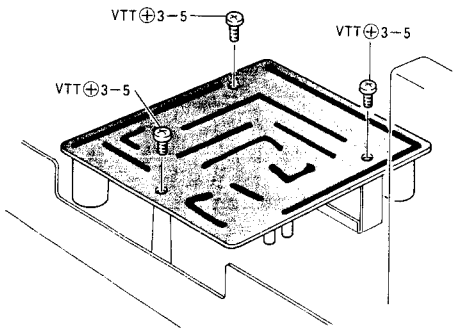
To Remove Cabinet
Remove 7 screws.



To Remove Bottom Cover
Remove 4 screws.

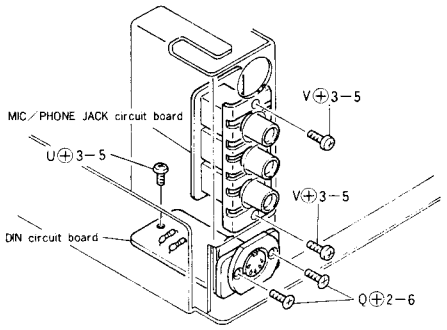


To Remove Power Circuit Board
Remove 3 screws.

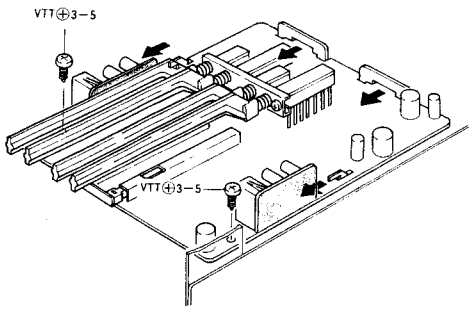


To Remove MIC/PHONE Jack Circuit Board
Remove 2 screws.

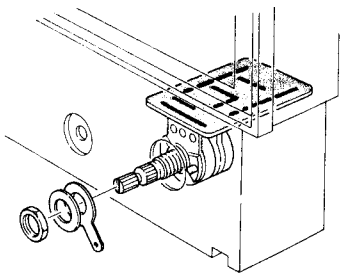
To Remove DIN Circuit Board
Remove 3 screws.



To Remove Main Circuit Board
Remove 2 screws.

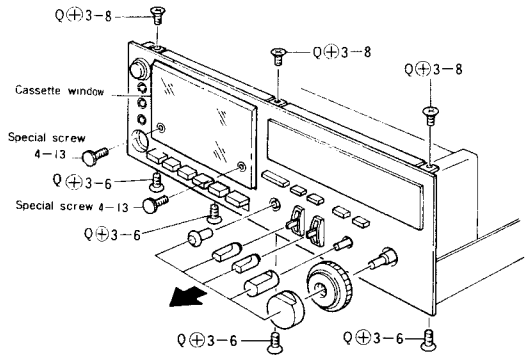


To Remove Rec. Volume Circuit Board
Remove mounting nut.



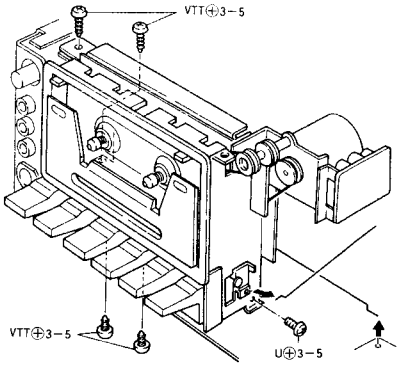
To Remove Front Panel

Pull out the 6 knobs and remove 9 screws.



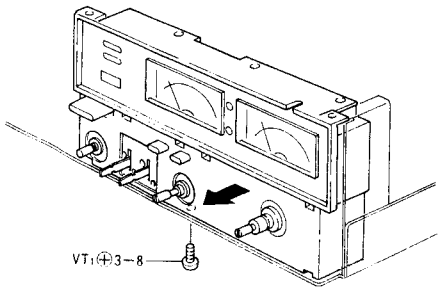
To Remove Mechanism

Remove 5 screws.



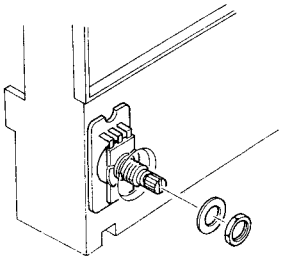
To Remove Front Chassis

Remove mounting screw.



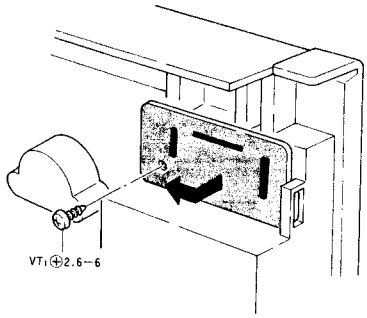
To Remove LH Bias Volume Circuit Board

Remove mounting nut.



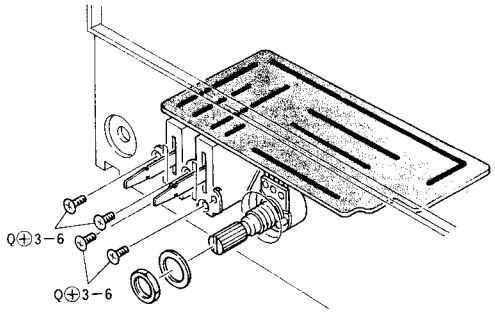
To Remove Lamp Circuit Board

Remove mounting screw.

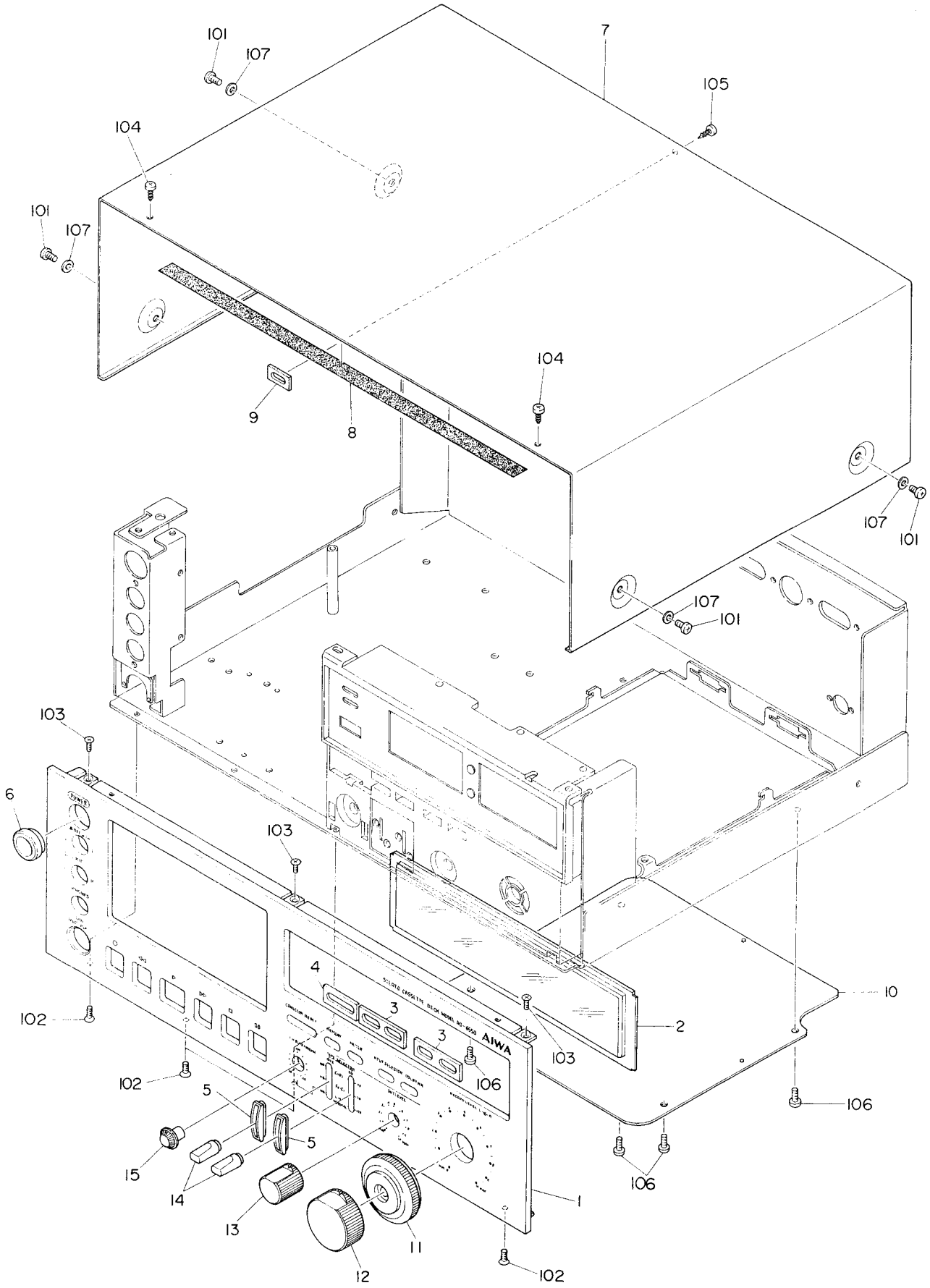


To Remove Eq./Switch Circuit Board

Remove 4 screws and nut.



EXPLODED VIEW–1



PARTS LIST

MECHANICAL PARTS

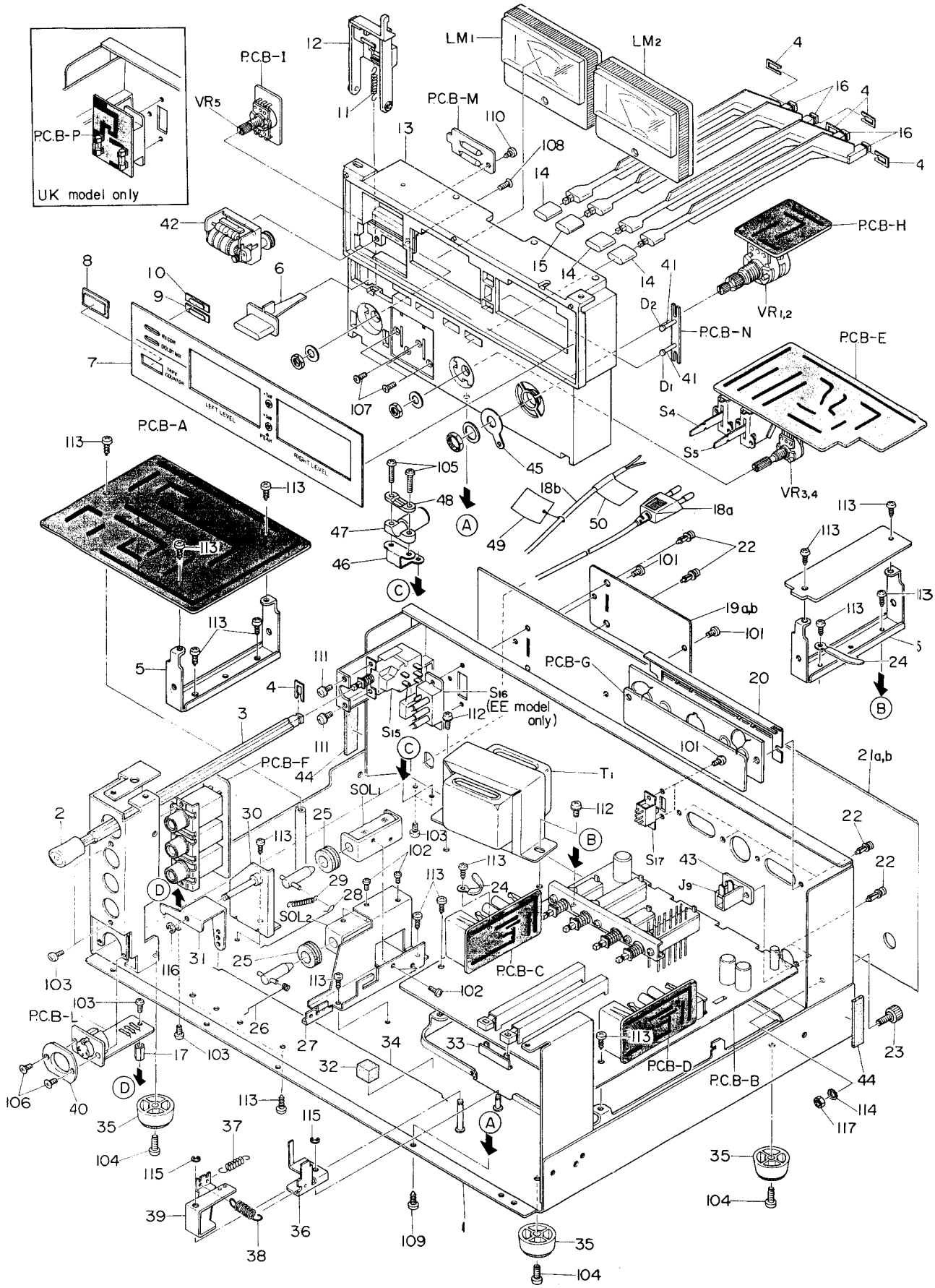
■ * Mark in this part list shows exclusive part (which is used) for only Model AD-6550.

Ref. No.	Part No.	Part No. Changed to	Description	Common Model	Q'ty
1~5	**09-047-084-01**		**Panel Assembly**		
1-1	82-397-003-01		Panel, Front	*	1
1-2	82-397-018-01		Window, Meter	*	1
1-3	82-397-250-01		Cover, Selector button	*	2
1-4	82-397-246-01		Cover, Reset button	*	1
1-5	82-387-028-01		Guide, Lever switch		2
1-6	82-397-027-01		Ring, AC switch button	*	1
1-7	82-397-004-01		Cabinet, Steel sach	*	1
1-8	82-397-245-01		Himeron cloth, Cabinet	*	1
1-9	82-380-439-01		Spacer, Back panel	AD-6500	1
1-10	82-397-293-01		Bottom lid	*	1
1-11	82-397-021-01		Knob B ass'y, RECORD LEVEL	*	1
1-12	82-397-019-01		Knob A ass'y, RECORD LEVEL	*	1
1-13	82-397-023-01		Knob ass'y, OUTPUT LEVEL	*	1
1-14	82-399-024-01		Knob ass'y, TAPE SELECTOR		2
1-15	82-397-062-01		Knob, LH BIAS FINE	*	1

Ref. No.	Part No.	Description	Q'ty
1-101	87-257-169-01	U + 4-6(Black)	4
1-102	87-233-094-01	Q + 3-6	4
1-103	87-233-095-01	Q + 3-8	3
1-104	87-326-095-01	UT_1 + 3-8(Black)	2

Ref. No.	Part No.	Description	Q'ty
1-105	87-327-074-01	UT_2 +2.6-8(Black)	1
1-106	87-081-481-01	VTT + 3-5	4
1-107	87-081-499-01	PW4-8-0.25	4

EXPLODED VIEW–2

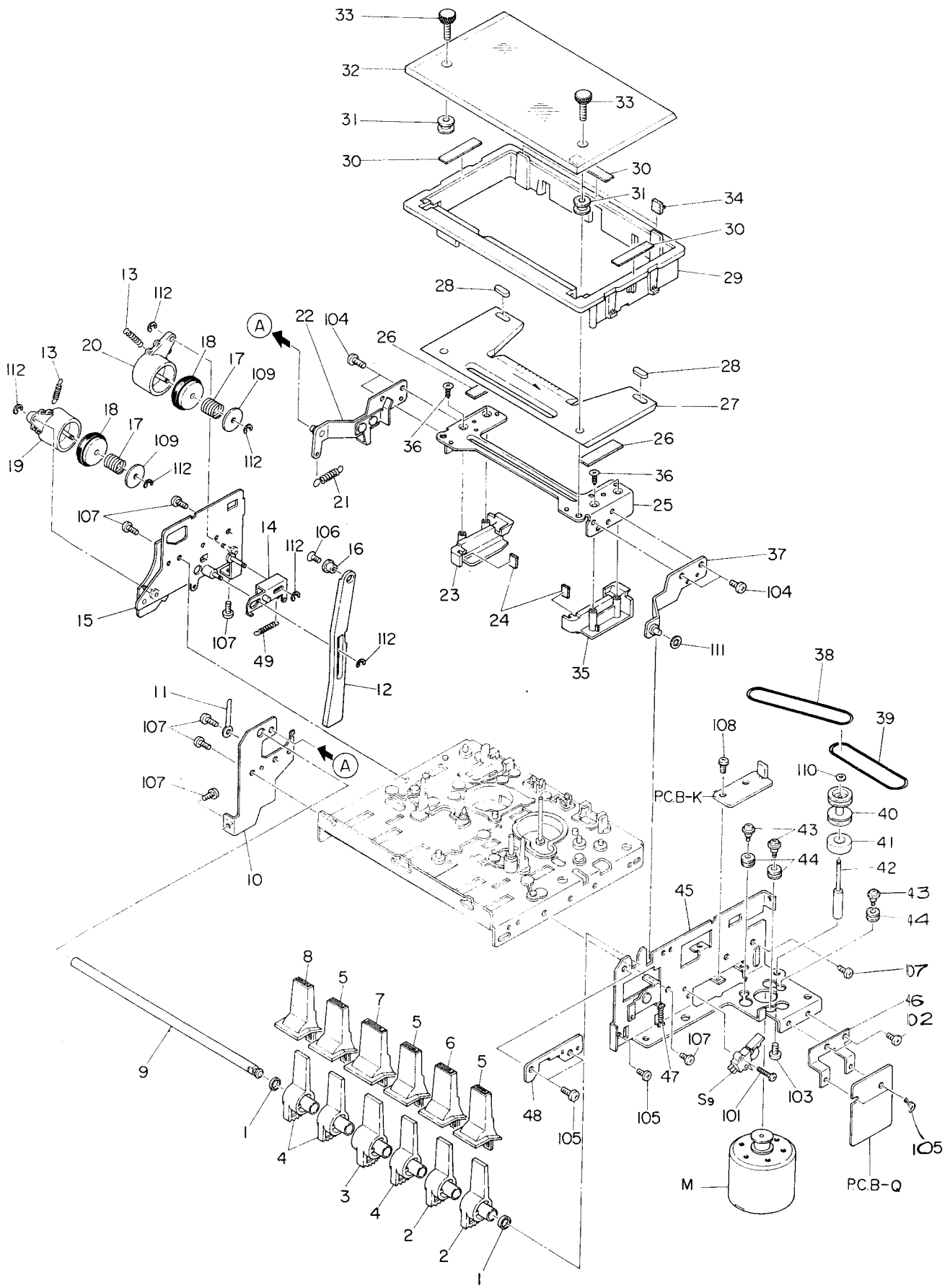


Ref. No.	Part No.	Part No. Changed to	Description	Common Model	Q'ty
2-1	82-397-201-01		Amp. chassis ass'y	*	1
2-2	82-399-025-01		AC switch button ass'y		1
2-3	82-385-382-01		Rod, P	AD-6300	1
2-4	82-385-383-01		Stopper, Rod	AD-6300	5
2-5	82-397-324-01		Holder, Circuit board	*	2
2-6	82-397-028-01		Reset button	*	1
2-7	82-397-017-01		Name plate, Meter	*	1
2-8	82-397-030-01		Window, Counter	*	1
2-9	82-397-031-01		Lens, DOLBY	*	1
2-10	82-397-032-01		Lens, REC	*	1
2-11	82-397-316-01		Spring, Reset	*	1
2-12	82-397-239-01		Lever, Reset button	*	1
2-13	82-397-210-01		Front chassis	*	1
2-14	82-397-029-01		Selector button	*	3
2-15	82-397-061-01		Selector button (blue)	*	1
2-16	82-397-902-01		Shaft, Selector	*	4
2-17	82-397-330-01		Shaft, DIN circuit board	*	1
2-18a	87-034-835-01		AC cord (EE model only)		1
2-18b	87-034-848-01		AC cord (UK model only)		1
2-19a	82-397-014-01		Name plate, Spec. (EE model only)	*	1
2-19b	82-397-063-01		Name plate, Spec. (UK model only)	*	1
2-20	82-386-629-01		Shield plate, Jack		1
2-21a	82-397-008-01		Jack plate (EE model only)	*	1
2-21b	82-397-009-01		Jack plate (UK model only)	*	1
2-22	87-085-102-01		Nylon rivet		8
2-23	87-033-088-01		Earth terminal		1
2-24	87-038-039-01		Wire binder		2
2-25	84-184-242-01		Rubber, Sound-proof		2
2-26	82-397-318-01		Slide rod, PAUSE	*	1
2-27	82-397-232-01		Holder, Solenoid	*	1
2-28	82-397-319-01		Slide rod, Auto A	*	1
2-29	82-272-424-01		Spring, Brake		1
2-30	82-397-229-01		REC holder ass'y	*	1
2-31	82-397-243-01		REC lever A	*	1
2-32	81-301-040-01		Cushion, Circuit board		1
2-33	82-397-334-01		Auxiliary plate	*	1
2-34	82-397-317-01		Slide rod, REC	*	1
2-35	87-085-144-01		Leg		4
2-36	82-397-248-01		REC lever C	*	1
2-37	82-397-310-01		Spring, REC	*	1
2-38	82-397-335-01		Spring, REC-C	*	1
2-39	82-397-241-01		REC lever B	*	1
2-40	82-397-054-01		Cover, DIN	*	1
2-41	82-397-235-01		Collar, LED	*	2
2-42	87-040-090-01		Counter		1
2-43	82-387-273-01		Holder, Jack		1
2-44	82-380-457-01		Stopper rubber, Up-plate		2
2-45	82-397-694-01		Earth lug	*	1
2-46	82-397-244-01		Holder, AC cord	*	1
2-47	87-085-094-01		Holder A, AC cord		1
2-48	87-085-095-01		Holder B, AC cord		1
2-49	87-056-008-01		Label, AC cord (UK model only)		1
2-50	87-056-014-01		Tag, Main voltage (UK model only)		1

Ref. No.	Part No.	Description	Q'ty
2-101	87-257-033-01	U + 2-4(Black)	2
2-102	87-253-071-01	U + 2.6-4	4
2-103	87-253-093-01	U + 3-5	2
2-104	87-253-170-01	U + 4-8	4
2-105	87-261-101-01	V + 3-18	2
2-106	87-233-035-01	Q + 2-6	2
2-107	87-233-094-01	Q + 3-6	4
2-108	87-233-095-01	Q + 3-8	2
2-109	87-341-095-01	UT_1 + 3-8	1

Ref. No.	Part No.	Description	Q'ty
2-110	87-351-073-01	VT_1 + 2.6-6	1
2-111	87-480-093-01	VS + 3-5	2
2-112	87-480-169-01	VS + 4-6	2
2-113	87-081-481-01	VTT + 3-5	17
2-114	87-433-906-01	WTIE4-10	1
2-115	87-441-006-01	STE-2.3	2
2-116	87-441-009-01	STE-3	1
2-117	87-391-024-11	N4	1

EXPLODED VIEW–3

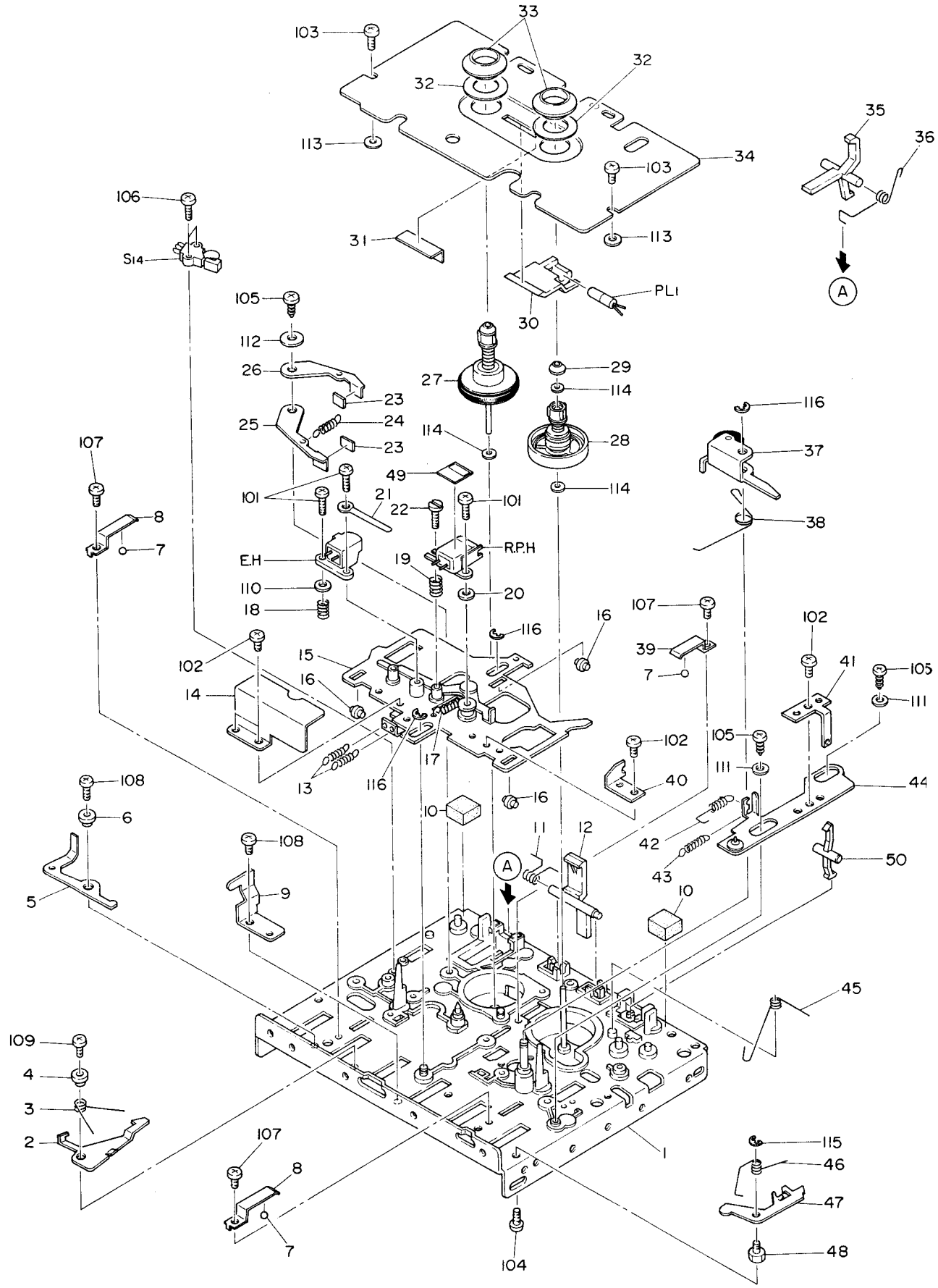


Ref. No.	Part No.	Part No. Changed to	Description	Common Model	Q'ty
3-1	82-397-279-01		Collar, Push key	*	2
3-2	82-397-276-01		Push-key lever, REW	*	2
3-3	82-397-274-01		Push-key lever, PLAY	*	1
3-4	82-397-275-01		Push-key lever, STOP	*	3
3-5	82-397-046-01		Push-key lever, FF	*	3
3-6	82-397-048-01		Push-key, STOP	*	1
3-7	82-397-045-01		Push-key, PLAY	*	1
3-8	82-397-047-01		Push-key, REC	*	1
3-9	82-397-278-01		Shaft, Push-key	*	1
3-10	82-397-252-01		Holder, Push-key	*	1
3-11	87-038-039-01		Wire binder		1
3-12	82-397-280-01		Lock plate, Cassette lid	*	1
3-13	82-397-303-01		Spring E, Oil drum	*	2
3-14	82-397-261-01		Lock lever ass'y	*	1
3-15	82-397-218-01		Frame chassis L ass'y	*	1
3-16	82-397-281-01		Flange collar, Cassette lid	*	1
3-17	82-397-302-01		Spring C, Oil drum	*	2
3-18	82-397-271-01		Idler lever ass'y, Oil	*	2
3-19	82-397-340-01		Drum B ass'y, Oil	*	1
3-20	82-397-265-01		Drum ass'y, Oil	*	1
3-21	82-397-348-01		Spring, Cassette lid arm	*	1
3-22	82-397-256-01		Cassette lid lever L ass'y	*	1
23~36	**09-047-077-01**		**Cassette lid ass'y**		
3-23	82-397-043-01		Cassette case L	*	2
3-24	82-397-312-01		G cushion, Cassette case	*	2
3-25	82-397-225-01		Cassette case ass'y	*	1
3-26	82-397-339-01		G cushion	*	2
3-27	82-397-056-01		Cassette lid	*	1
3-28	82-397-052-01		Bushing, Cassette lid	*	2
3-29	82-397-044-01		Blinder	*	1
3-30	82-397-313-01		G cushion, Blinder	*	3
3-31	82-397-053-01		G cushion, Cassette window	*	2
3-32	82-397-036-01		Cassette window	*	1
3-33	82-397-040-01		Special screw, 4mmϕ x 13mm	*	2
3-34	82-397-055-01		Cushion, Cassette lid	*	2
3-35	82-397-042-01		Cassette case R	*	1
3-36	87-329-036-01		QT$_1$ + 2-8 (Black)		4
3-37	82-397-264-01		Cassette lid lever R ass'y	*	1
3-38	82-397-325-01		Rubber belt C	*	1
3-39	82-397-314-01		Rubber belt A	*	1
3-40	82-397-228-01		Relay pulley	*	1
3-41	82-379-617-01		Ring magnet	AD-1800	1
3-42	82-397-247-01		Shaft ass'y, Relay	*	1
3-43	87-081-483-01		Motor screw		3
3-44	87-087-029-01		Rubber cushion		3
3-45	82-397-211-01		Frame chassis R ass'y	*	1
3-46	82-397-647-01		Holder, Motor circuit board	*	1
3-47	82-272-424-01		Brake spring		1
3-48	82-397-270-01		Shaft, Stopper C	*	1
3-49	82-397-301-01		Spring, Lock lever	*	1

Ref. No.	Part No.	Description	Q'ty
3-101	87-253-036-01	U + 2-8	2
3-102	87-253-071-01	U + 2.6-4	2
3-103	87-253-072-01	U + 2.6-5	1
3-104	87-257-073-01	U + 2.6-6(Black)	4
3-105	87-253-093-01	U + 3-5	5
3-106	87-233-074-01	Q + 2.6-8	1

Ref. No.	Part No.	Description	Q'ty
3-107	87-081-481-01	VTT + 3-5	8
3-108	87-480-072-01	VS + 2.6-5	2
3-109	87-410-318-01	W3-13-0.8	2
3-110	87-081-489-01	PW1.7-3.5-0.25	1
3-111	87-081-499-01	PW4-8-0.25	1
3-112	87-441-006-01	STE-2.3	6

EXPLODED VIEW–4

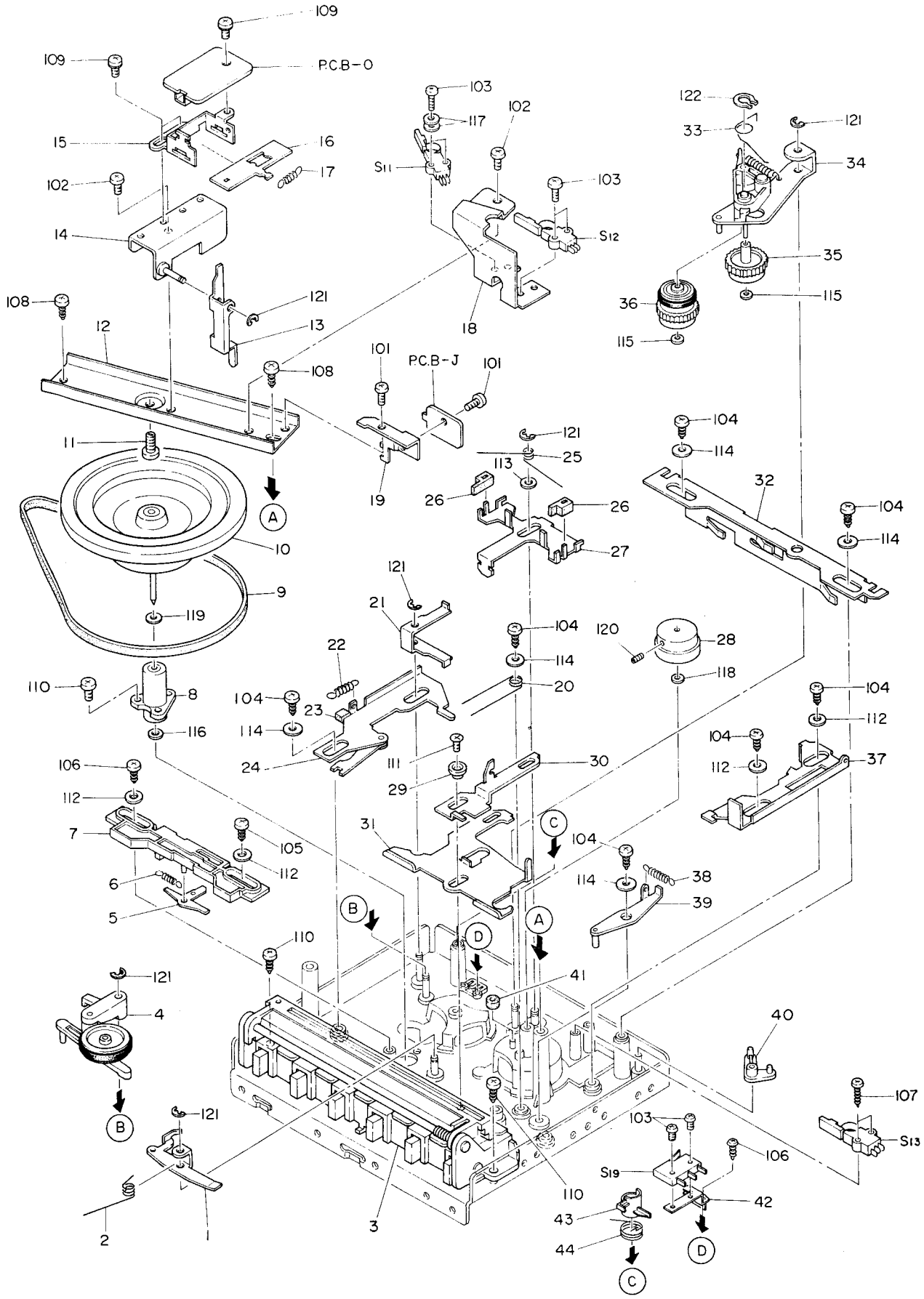


Ref. No.	Part No.	Part No. Changed to	Description	Common Model	Q'ty
4-1	82-392-202-01		Outsert chassis ass'y	*	1
4-2	82-397-320-01		Stopper, Actuating chassis	*	1
4-3	82-397-299-01		Spring, Stopper	*	1
4-4	82-397-323-01		Flange collar B	*	1
4-5	82-397-321-01		Lever, Actuating	*	1
4-6	82-397-322-01		Flange collar A	*	1
4-7	82-215-341-01		Steel ball, 3/32		3
4-8	82-392-317-01		Spring, Actuating chassis B	*	2
4-9	82-397-289-01		Stopper B, Push-key shaft	*	1
4-10	82-397-349-01		G cushion, Cassette plate	*	2
4-11	82-397-297-01		Spring, Cassette holder	*	1
4-12	82-397-286-01		Lever, Cassette holder	*	1
4-13	82-392-342-01		Return spring	*	2
4-14	82-397-291-01		Shield plate, Head	*	1
4-15	82-392-218-01		Actuating chassis ass'y	*	1
4-16	82-392-318-01		Roller, Actuating chassis	*	3
4-17	82-392-343-01		Spring, Actuating chassis	*	1
4-18	82-392-357-01		Spring, Erasing head	*	1
4-19	82-392-347-01		Spring, Rec/pb head	*	1
4-20	82-392-354-01		G cushion, Head	*	1
4-21	82-357-487-01		Binder, Lead wire		1
4-22	82-439-373-01		Shaft, Rec/pb adjusting	TPR-300	1
4-23	82-392-350-01		Felt, Back tension	*	2
4-24	82-392-340-01		Spring, Back tension	*	1
4-25	82-392-359-01		Lever, Back tension C	*	1
4-26	82-392-360-01		Lever, Back tension D	*	1
4-27	82-397-326-01		Supply reel platform ass'y	*	1
4-28	82-392-283-01		Take-up reel platform ass'y	*	1
4-29	82-392-352-01		Cap, Take-up reel platform	*	1
4-30	82-397-041-01		Guide, Light	*	1
4-31	82-397-345-01		Blinder, Light	*	1
4-32	82-397-290-01		Adhesive sheet, Ring	*	2
4-33	82-397-039-01		Ring, Reel platform	*	2
4-34	82-397-064-01		Cassette plate	*	1
4-35	82-397-287-01		Lever, Record-blocking	*	1
4-36	82-397-298-01		Spring, Record-blocking lever	*	1
4-37	82-392-363-01		Pinch roller ass'y	*	1
4-38	82-392-334-01		Spring, Pinch lever	*	1
4-39	82-392-316-01		Spring, Actuating chassis A	*	1
4-40	82-392-367-01		Plate, PSP	*	1
4-41	82-397-233-01		Auxiliary plate, pause	*	1
4-42	82-392-375-01		Spring, Pause B	*	1
4-43	82-392-374-01		Spring, Pause A	*	1
4-44	82-392-280-01		Pause slide plate ass'y	*	1
4-45	82-392-333-01		Spring, Take-up	*	1
4-46	82-392-335-01		Spring, Lock plate	*	1
4-47	82-392-213-01		Lock plate	*	1
4-48	82-392-211-01		Shaft, Lock plate	*	1
4-49	82-372-931-01		Label, Head	AD-1500	1
4-50	82-397-288-01		Lever, CrO_2 selecting		1

Ref. No.	Part No.	Description	Q'ty
4-101	87-253-034-01	V + 2-5	3
4-102	87-263-071-01	V + 2.6-4	4
4-103	87-253-031-01	U + 2-2	2
4-104	87-253-032-01	U + 2-3	1
4-105	87-351-074-01	UT_1 + 2.6-8	3
4-106	87-341-036-01	UT_1 + 2-8	2
4-107	87-081-501-01	VTT + 2.6-4	3
4-108	87-081-480-01	VTT + 2.6-5	2

Ref. No.	Part No.	Description	Q'ty
4-109	87-081-503-01	VTT + 2.6-8	1
4-110	87-410-303-01	W2-4.3-0.23	1
4-111	87-410-311-01	W2.6-7.5-0.5	2
4-112	87-410-317-01	W3-10-0.8	1
4-113	87-081-023-01	FW2.6-7.5-0.5	2
4-114	87-081-319-01	TW2.3-8-0.2	3
4-115	87-441-005-01	STE-2	1
4-116	87-441-005-01	STE-2.3	3

EXPLODED VIEW–5

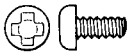


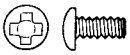
Ref. No.	Part No.	Part No. Changed to	Description	Common Model	Q'ty
5-1	82-392-302-01		REV. auxiliary lever ass'y	*	1
5-2	82-392-331-01		Spring, REV. auxiliary lever	*	1
5-3	82-392-235-01		Push-switch proper ass'y	*	1
5-4	82-392-262-01		Take-up idler ass'y	*	1
5-5	82-392-361-01		Lever, Main drive B	*	1
5-6	82-392-346-01		Spring, FF	*	1
5-7	82-392-313-01		Slide plate, FR	*	1
5-8	82-392-256-01		Shaft bearing ass'y	*	1
5-9	82-392-313-01		Belt, Main	*	1
5-10	82-392-371-01		Flywheel ass'y	*	1
5-11	82-331-107-01		Screw for thrust		1
5-12	82-392-321-01		Plate, Flywheel	*	1
5-13	82-397-240-01		Lever, MT switch	*	1
5-14	82-397-236-01		MT switch holder ass'y	*	1
5-15	82-374-248-01		Switch holder C		1
5-16	82-397-242-01		Slider, MT switch	*	1
5-17	82-372-417-01		Spring B, MT switch slider	AD-1500	1
5-18	82-397-308-01		Holder, Memory switch	*	1
5-19	82-397-269-01		Holder, Hall	*	1
5-20	82-392-337-01		Spring, Center shifter	*	1
5-21	82-397-283-01		Eject lever B	*	1
5-22	82-397-300-01		Spring, Eject lever	*	1
5-23	82-397-307-01		G cushion, Eject lever	*	1
5-24	82-397-253-01		Eject lever A ass'y	*	1
5-25	82-392-332-01		Spring, Brake	*	1
5-26	82-439-260-01		Brake shoe	TPR-300	2
5-27	82-392-320-01		Slide plate, Brake	*	1
5-28	82-397-336-01		Ring magnet A ass'y	*	1
5-29	82-392-353-01		Collar, Rewind shaft	*	1
5-30	82-392-326-01		Slide plate, REW	*	1
5-31	82-392-323-01		Slide plate, Brake S	*	1
5-32	82-397-285-01		Slide plate, Eject	*	1
5-33	82-392-330-01		Spring, FR lever	*	1
5-34	82-392-295-01		FR lever ass'y	*	1
5-35	82-392-315-01		Gear, REW	*	1
5-36	82-392-305-01		FF pulley ass'y	*	1
5-37	82-397-282-01		Slide plate, REC	*	1
5-38	82-392-345-01		Spring, REC lock	*	1
5-39	82-392-274-01		REC lock lever ass'y	*	1
5-40	82-397-284-01		Eject lever C	*	1
5-41	82-392-373-01		G cushion, FR	*	1
5-42	82-397-346-01		Holder, CrO_2 switch	*	1
5-43	82-397-347-01		Lever, CrO_2		1
5-44	82-397-350-01		T spring, CrO_2		1

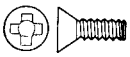
Ref. No.	Part No.	Description	Q'ty
5-101	87-253-072-01	V + 2.6-5	2
5-102	87-253-093-11	V + 3-5	2
5-103	87-253-036-01	U + 2-8	6
5-104	87-351-074-01	VT_1 + 2.6-8	7
5-105	87-351-075-01	VT_1 + 2.6-10	2
5-106	87-341-034-01	UT_1 + 2-5	2
5-107	87-341-037-01	UT_1 + 2-10	2
5-108	87-341-095-01	UT_1 + 3-8	2
5-109	87-480-072-01	VS + 2.6-5	3
5-110	87-081-480-01	VTT + 2.6-5	5
5-111	87-081-523-01	QTT + 2.6-8	1

Ref. No.	Part No.	Description	Q'ty
5-112	87-810-311-01	W2.6-7.5-0.5	4
5-113	87-410-312-01	W3-6-0.3	1
5-114	87-410-317-01	W3-10-0.8	5
5-115	87-081-489-01	PW1.7-3.5-0.25	3
5-116	82-416-358-01	PW2.5-6	1
5-117	87-081-197-01	FW2.6-8-1.0	2
5-118	87-081-319-01	TW2.3-8-0.2	1
5-119	87-081-098-01	NW2.6-7-0.3	1
5-120	87-374-035-01	SS2-6	1
5-121	87-441-006-01	STE-2.3	5
5-122	87-442-005-01	STP-5	1

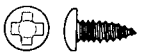
HARDWARE NOMENCLATURE

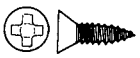
V: Pan head screw 

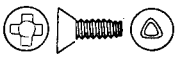
U: Binding head screw 

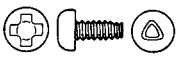
Q: Flat countersunk head screw 

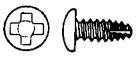
VT1: Pan head tapping screw

UT1: Binding head tapping screw 

QT1: Flat countersunk head tapping screw 

QTT: Flat countersunk head tap-tight screw 

VTT: Pan head tap-tight screw 

UT2: Binding head tapping screw 

VS: Pan head screw with spring washer

STE: E ring

STP: Powerful stop ring

W: Washer

FW: Fiber washer

NW: Nylon washer

PW: Poly-slider washer

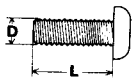
TW: Tefron washer

WTIE: Crown washer

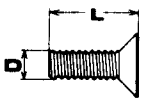
SS: Set screw

N: Nut

Example:



V + 3 – 6
- Length in mm
- Diameter in mm
- Type of Slot
- Type of Head



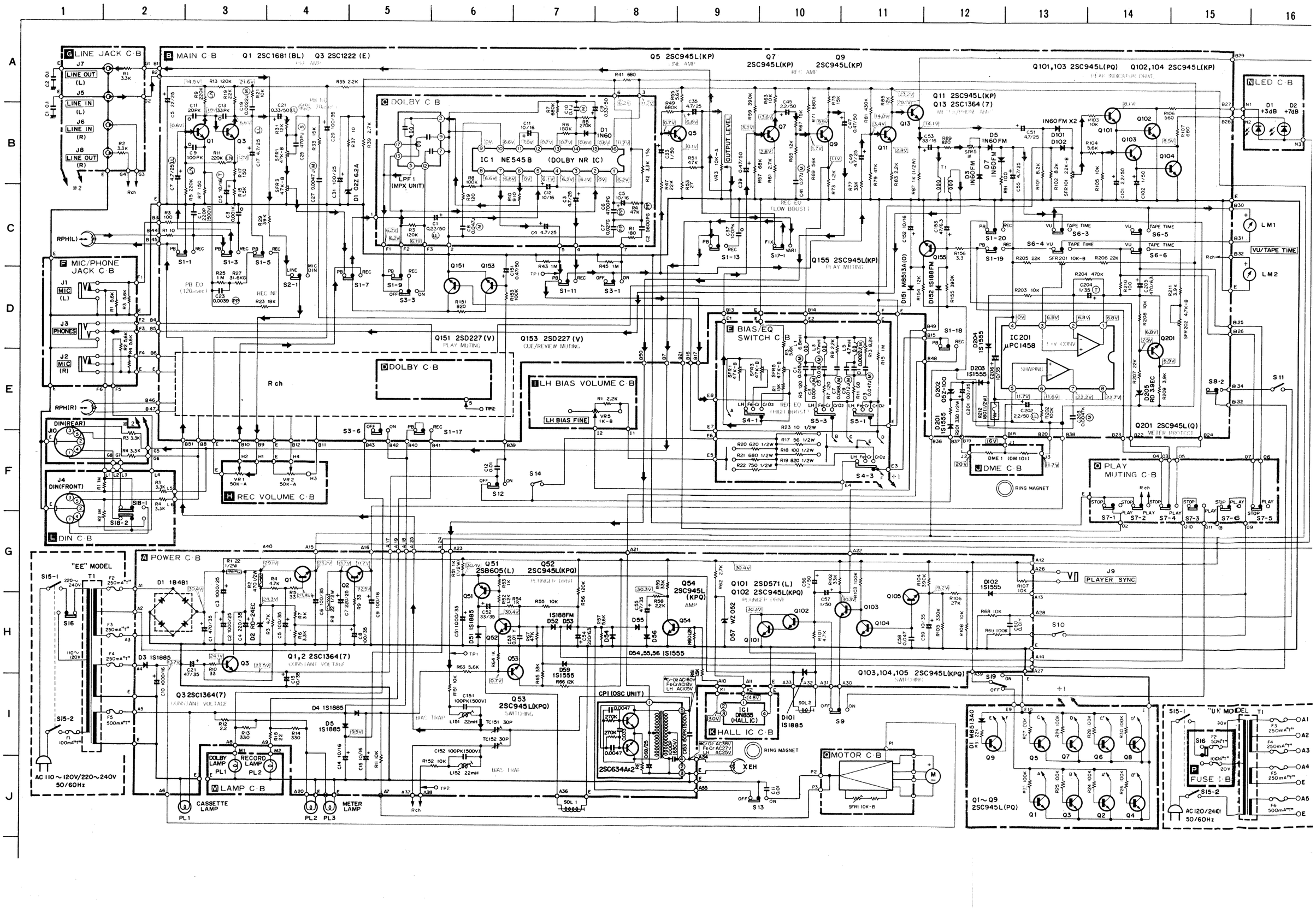
Q + 3 – 6
- Length in mm
- Diameter in mm
- Type of Slot
- Type of Head

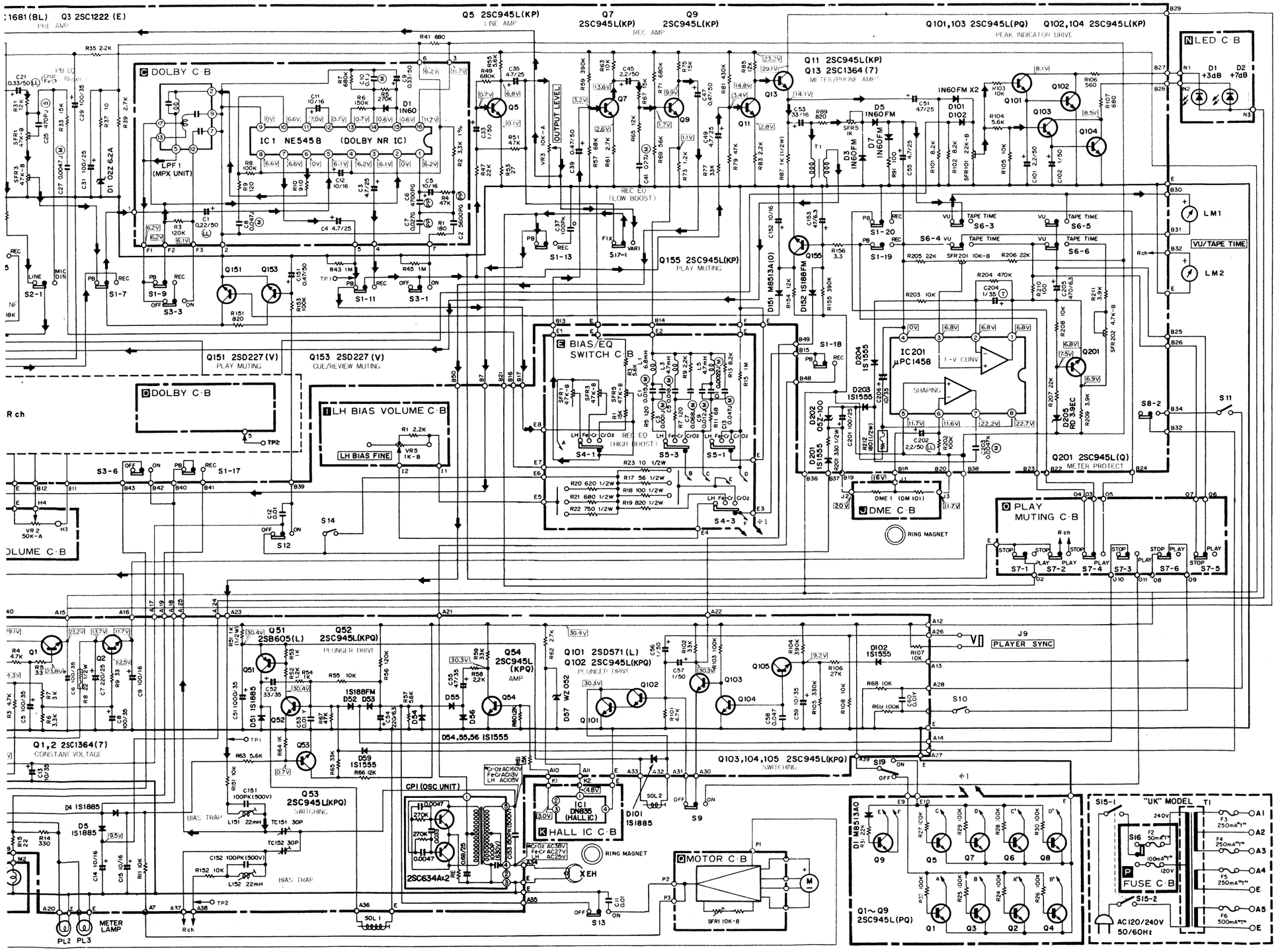
ACCESSORIES/PACKAGE

Ref. No.	Part No.	Part No. Changed to	Description	Common Model	Q'ty
1	82-397-855-01		Printed indiv., Packing	*	1
2	82-397-856-01		Cushion L, Printed indiv.	*	1
3	82-397-857-01		Cushion R, Printed indiv.	*	1
4	86-056-500-01		Curl stopper		2
5	87-051-146-01		Poly-vinyl sack (for case)		1
6	87-051-175-01		Poly-tube A (for instruction)		1
7	87-051-131-01		Poly-vinyl sack (for AC cord)		1
8	87-058-024-01		Head cleaning pole		1
9	86-925-002-01		Connection cord, CW-115K		1
10	87-058-023-01		Cord binder		1
11	82-397-859-01		Pad, Cassette window	*	1
12a	82-397-903-01		Instructions booklet (EE model only)	*	1
12b	82-397-904-01		Instructions booklet (UK model only)	*	1
13	87-056-009-01		Distributors list		1
14	80-291-645-01		Tape cassette, DMC-130A		1

AIWA

SCHEMATIC DIAGRAM



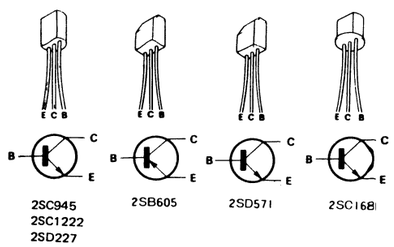


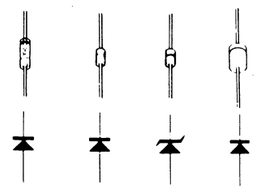
NOTES:

1) —— B(+) power supply
2) ➡ Signal path
   ➡ Rec. path
3) The voltage is the reference value measured with a tester (20 k-ohms/V DC) when there are no signals.
   An asterisk (*) indicates that the value was measured with a vacuum-tube voltmeter during recording.
4) Resistors with no designation have a rated power of ¼W and a tolerance of ±5%.
5) Capacitors with no designation have a dielectric strength of less than 50WV.
6) Ceramic capacitor symbols:
   ⊣⊢ For temperature compensation (SL)
   ⊣⊢ High dielectric constant system (YY)
   ⊣⊢ High dielectric constant system (YP, YZ)
7) The only capacitor tolerances indicated are ±2% (G), ±5% (J) and ±10% (K).
8) Explanation of symbols
   (M) Mylar capacitor
   (S) Styrol capacitor
   (T) Tantalum capacitor
   (LL) Low-leakage capacitor
   (PP) Polypropylene film capacitor
   (LN) Low-noise resistor
9) Switches are set to the following positions

S1-1~10	REC/PB	(PB)
S2-1~2	INPUT SELECTOR	(LINE)
S3-1~6	DOLBY NR	(OFF)
S4-1~4	TAPE SELECTOR-BIAS	(LH)
S5-1~4	TAPE SELECTOR-EQ	(LH)
S6-1~6	METER	(VU)
S7-1~6	PLAY MUTING	(STOP)
S8-1~2	MEMORY	(OFF)
S9	PAUSE	(OFF)
S10	COUNTER	(OFF)
S11	REWIND	(OFF)
S12	CUE/REVIEW MUTING	(OFF)
S13	MOTOR	(OFF)
S14	BIAS MUTING	(STOP)
S15	POWER	(OFF)
S16	VOLTAGE SELECTOR	
S17	DIN OUT	(FIX)
S18	DIN FRONT/REAR	(REAR)
S19	CrO_2 AUTO	(OFF)

* This schematic diagram is subject to change without notice in the interests of improved performance.





MODEL AD-6550EE,UK

ELECTRICAL MAIN PARTS

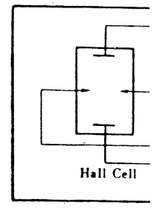
Symbol No.	Part No.	Description
≪ POWER CIRCUIT BOARD SECTION ≫		
PCB-A	82-397-610-11	Power circuit board
< POWER SECTION >		
Q1,2,3	89-313-647-01	Transistor, 2SC1364 (7)
D1	87-027-163-01	Bridge diode, 1B4B1
D2	87-027-212-01	Zener diode, RD24EC
D3,4,5	87-027-083-01	Diode, 1S1885
		< Resistors >
R1,8	87-029-016-01	22Ω 1/2W Fuse resistor
R2	87-029-027-01	470Ω 1/2W Fuse resistor
< BIAS OSC SECTION >		
CP1	82-372-658-01	Bias OSC unit
L151,152	82-371-644-01	Bias OSC coil, 22mH
TC151,152	87-011-079-01	Trimmer, 30pF
< AUTO STOP SECTION >		
Q51	89-206-052-01	Transistor, 2SB605 (L)
Q52,53,54	89-309-455-71	Transistor, 2SC945L (K, P, Q)
D51	87-027-083-01	Diode, 1S1885
D52,53	88-052-188-01	Diode, 1S188 (FM)
D54,55,56,59	87-027-097-01	Diode, 1S1555
D57	87-026-069-01	Zener diode, WZ-052
< TIMER START SECTION >		
Q101	89-405-712-01	Transistor, 2SD571 (L)
Q102,103,104, 105	89-309-455-71	Transistor, 2SC945L (K, P, Q)
D101	87-027-083-01	Diode, 1S1885
D102	87-027-097-01	Diode, 1S1555
≪ MAIN CIRCUIT BOARD SECTION ≫		
PCB-B	82-397-652-01	Main circuit board
< REC/PB SECTION >		
Q1,2	89-316-816-01	Transistor, 2SC1681 (BL)
Q3,4	89-312-222-01	Transistor, 2SC1222 (E)
Q5,6,7,8,9,10, 11,12	89-309-456-71	Transistor, 2SC945L (K, P)
Q13,14	89-313-647-01	Transistor, 2SC1364 (7)
D1,2	87-027-122-01	Zener diode, 02Z6.2A
D3,4,5,6,7,8	88-051-060-01	Diode, 1N60 (FM)
T1,2	82-370-610-01	Matching transformer
S1	87-031-390-01	Slide switch (REC/PB)
S2,3,6,8	82-397-641-01	Push switch ass'y (A) (INPUT SELECTOR, DOLBY-NR METER, MEMORY)
SFR1,2,3,4	87-021-498-01	Semi-fixed resistor, 47kΩ-B
SFR5,6	87-021-493-01	Semi-fixed resistor, 1kΩ-B
		< Resistor >
R27,28	82-380-664-01	31.6kΩ 1/4W ±5%
		< Capacitors >
C7,8,17,18	87-015-246-01	4.7μF 25V LL
C21,22	87-015-261-01	0.33μF 35V Tantalum
C15,16	87-015-200-01	10μF 16V Tantalum
C23,24	82-380-661-01	0.0039μF PP
< PEAK INDICATOR SECTION >		
Q101,103	89-309-455-61	Transistor, 2SC945L (P, Q)
Q102,104	89-309-456-71	Transistor, 2SC945L (K, P)
D101,102	88-051-060-01	Diode, 1N60 (FM)
SFR101	87-021-497-01	Semi-fixed resistor, 22kΩ-B

Symbol No.	Part No.	Description
< MUTING SECTION >		
Q151,152,153, 154	89-402-275-01	Transistor, 2SD227 (V)
Q155	89-309-456-71	Transistor, 2SC945L (K,P)
D151	87-026-066-01	Diode, M8513A (O)
D152	88-052-188-01	Diode, 1S188 (FM)
< REMAINING TAPE INDICATOR SECTION >		
IC201	87-027-214-01	IC, μPC 1458
Q201	89-309-455-01	Transistor, 2SC945L (Q)
D201,203,204	87-027-097-01	Diode, 1S1555
D202	87-027-213-01	Zener diode, 05Z100
D205	87-027-211-01	Zener diode, RD3.9EC
SFR201	87-021-496-01	Semi-fixed resistor, 10kΩ-B
SFR202	87-021-495-01	Semi-fixed resistor, 4.7kΩ-B
		< Resistor >
R212	87-029-020-01	180Ω 1/2W Fuse resistor
		< Capacitors >
C202	87-015-242-01	2.2μF 50V LL
C204	87-019-080-01	1μF 35V Tantalum
≪ DOLBY CIRCUIT BOARD SECTION ≫		
PCB-C,D	82-385-650-11	Dolby circuit board
IC1	87-027-151-01	IC, NE545B
D1	88-051-060-01	Diode, 1N60 (FM)
LPF1	82-397-634-01	Low pass filter (MPX UNIT)
	87-032-640-01	Pin, 10p
		< Resistor >
R2	82-371-652-01	3.3kΩ ±1%
		< Capacitors >
C1	87-015-328-01	0.22μF 50V LL
C6	87-371-643-01	4700pF PP
C2	82-371-642-01	5600pF PP
C7	82-371-641-01	0.027μF PP
≪ BIAS/EQ SWITCH CIRCUIT BOARD SECTION ≫		
PCB-E	82-397-653-01	Bias/EQ switch circuit board
Q1~9	89-309-455-61	Transistor, 2SC 945 (K, P)
D1	87-026-066-01	Diode, M8513A (O)
L1,2	82-385-636-01	Coil, 6.8mH
L3,4,5,6	82-385-634-01	Coil, 4.7mH
VR3,4	82-397-636-01	Volume, 10kΩ-A (OUT PUT LEVEL)
S4,5	87-031-388-01	Lever switch (BIAS, EQ)
SFR1,2,3,4, 5,6	87-021-498-01	Semi-fixed resistor, 47kΩ-B
≪ MIC/PHONE JACK CIRCUIT BOARD SECTION ≫		
PCB-F	82-397-605-01	MIC/PHONE JACK circuit board
J1,2,3	82-397-639-01	Jack ass'y (MIC, PHONES)
≪ LINE JACK CIRCUIT BOARD SECTION ≫		
PCB-G	82-397-662-01	LINE JACK circuit board
J5,6,7,8	82-399-609-01	JACK ass'y (LINE IN, LINE OUT)
≪ REC VOLUME CIRCUIT BOARD SECTION ≫		
PCB-H	82-397-607-01	REC volume circuit board
VR1,2	82-385-640-01	Volume, 50kΩ-A (REC LEVEL)
≪ LH BIAS VOLUME CIRCUIT BOARD SECTION ≫		
PCB-I	82-397-608-01	LH Bias volume circuit board
VR5	82-397-637-01	Volume, 1kΩ-B (LH BIAS FINE)

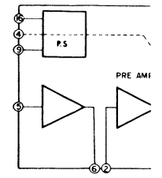
Symbol No.	Part No.	Description
≪ DME CIRCUIT BOARD SECTION ≫		
PCB-J	82-397-625-01	DME circuit board
DME1	82-397-642-01	DM-101
≪ HALL IC CIRCUIT BOARD SECTION ≫		
PCB-K	82-397-623-01	Hall IC circuit board
IC1	87-027-160-01	Hall IC, DN835
≪ DIN CIRCUIT BOARD SECTION ≫		
PCB-L	82-397-654-01	DIN circuit board
J4	82-380-616-01	DIN socket (DIN)
S18	82-380-610-01	DIN switch (FRONT/REAR)
≪ LAMP CIRCUIT BOARD SECTION ≫		
PCB-M	82-397-622-01	Lamp circuit board
PL1,2	82-380-705-01	Lamp 8V 55mA (DOLBY-NR, RECORD)
≪ LED CIRCUIT BOARD SECTION ≫		
PCB-N	82-397-624-01	LED circuit board
D1	87-026-086-01	Light emitting diode (ORG)
D2	87-026-083-01	Light emitting diode (RED)
≪ PLAY MUTING CIRCUIT BOARD SECTION ≫		
PCB-O	82-397-609-01	Play muting circuit board
S7	87-031-239-01	Slide switch (PLAY MUTING)
≪ FUSE CIRCUIT BOARD SECTION ≫ = UK model only		
PCB-P	82-397-650-01	Fuse circuit board
F1	87-035-131-01	Fuse, 100mA "T"
	87-098-006-01	Fuse label, 100mA "T"
F2	87-035-183-01	Fuse, 50mA "T"
	87-098-003-01	Fuse label, 50mA "T"
	87-032-744-01	Fuse clamp
S16	87-031-343-01	Slide switch (VOLTAGE SELECTOR)
≪ MISCELLANEOUS ≫		
T1	82-397-629-01	Power transformer (EE model only)
T1	82-397-630-01	Power transformer (UK model only)
RPH	82-372-676-01	Rec/Pb head
EH	87-046-088-11	Erase head

Symbol No.	Part No.	Description
M, PCB-Q	82-397-643-01	Motor ass'y
PL1	82-397-646-01	Pilot lamp 8V 50mA (CASSETTE)
SOL1,2	82-397-633-01	Solenoid (AUTO STOP, TIMER START)
LM1	82-397-644-01	Level meter A (LEFT LEVEL)
LM2	82-397-645-01	Level meter B (RIGHT LEVEL)
J9	87-032-849-01	Jack 2.5φ (PLAYER SYNC)
S9,11,12,13	87-031-362-01	Micro switch (PAUSE, REWIND CUE/REVIEW, MUTING, MOTOR)
S14	87-031-363-01	Micro switch (BIAS MUTING)
S15	87-031-382-01	Push switch (POWER)
S16	87-031-364-01	Slide switch (VOLTAGE SELECTOR) (EE model only)
S17	82-467-671-01	Slide switch (DIN OUT)
S19	87-031-377-01	Micro switch (CrO_2 AUTO)
F1	87-035-067-01	Fuse, 100mA "T" (EE model only)
	87-098-006-01	Fuse label, 100mA "T" (EE model only)
F2,3,4	87-035-144-01	Fuse, 250mA "T" (EE model only)
F3,4,5	87-035-145-01	Fuse, 250mA "T" (UK model only)
	87-098-010-01	Fuse label, 250mA "T"
F5	87-035-075-01	Fuse, 500mA "T" (EE model only)
	87-098-013-01	Fuse label, 500mA "T" (EE model only)
F6	87-035-134-01	Fuse, 500mA "T" (UK model only)
	87-098-013-01	Fuse label, 500mA "T" (UK model only)
	82-397-660-01	Fuse holder, 4P (UK model only)
	82-397-661-01	Fuse holder, 5P (EE model only)

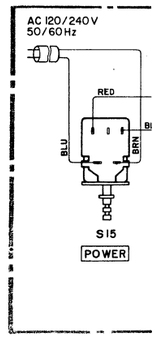
IC BLOCK DI



IC BLOCK DIA

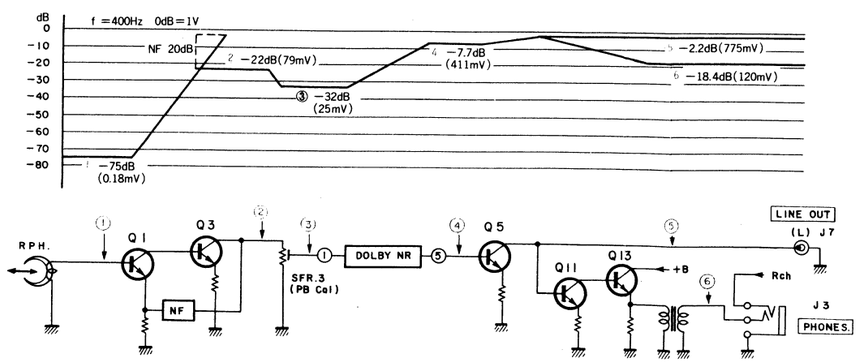


POWER CIR

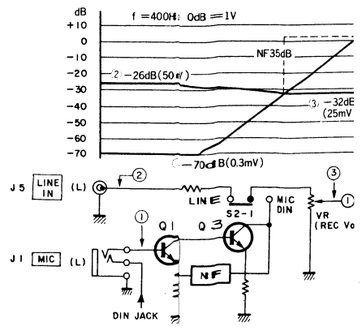


LEVEL DIAGRAM

- **Playback**



- **Recording**

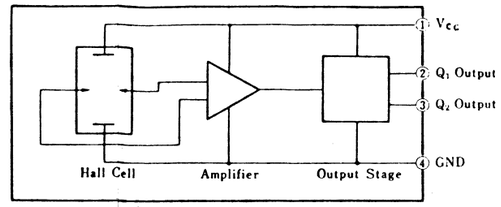


Symbol No.	Part No.	Description
		< MUTING SECTION >
Q151,152,153, 154	89-402-275-01	Transistor, 2SD227 (V)
Q155	89-309-456-71	Transistor, 2SC945L (KP)
D151	87-026-066-01	Diode, M8513A (O)
D152	88-052-188-01	Diode, 1S188 (FM)
		< REMAINING TAPE INDICATOR SECTION >
IC201	87-027-214-01	IC, μPC 1458
Q201	89-309-455-01	Transistor, 2SC945L (Q)
D201,203,204	87-027-097-01	Diode, 1S1555
D202	87-027-213-01	Zener diode, 05Z100
D205	87-027-211-01	Zener diode, RD3.9EC
SFR201	87-021-496-01	Semi-fixed resistor, 10kΩ-B
SFR202	87-021-495-01	Semi-fixed resistor, 4.7kΩ-B
		< Resistor >
R212	87-029-020-01	180Ω 1/2W Fuse resistor
		< Capacitors >
C202	87-015-242-01	2.2μF 50V LL
C204	87-019-080-01	1μF 35V Tantalum
		≪DOLBY CIRCUIT BOARD SECTION≫
PCB-C,D	82-385-650-11	Dolby circuit board
IC1	87-027-151-01	IC, NE545B
D1	88-051-060-01	Diode, 1N60 (FM)
LPF1	82-397-634-01	Low pass filter (MPX UNIT)
	87-032-640-01	Pin, 10p
		< Resistor >
R2	82-371-652-01	3.3kΩ ±1%
		< Capacitors >
C1	87-015-328-01	0.22μF 50V LL
C6	87-371-643-01	4700pF PP
C2	87-371-642-01	5600pF PP
C7	87-371-641-01	0.027μF PP
		≪BIAS/EQ SWITCH CIRCUIT BOARD SECTION≫
PCB-E	82-397-653-01	Bias/EQ switch circuit board
Q1~9	89-309-455-61	Transistor, 2SC 945 (K, P)
D1	87-026-066-01	Diode, M8513A (O)
L1,2	82-385-636-01	Coil, 6.8mH
L3,4,5,6	82-385-634-01	Coil, 4.7mH
VR3,4	82-397-636-01	Volume, 10kΩ-A (OUT PUT LEVEL)
S4,5	87-031-388-01	Lever switch (BIAS, EQ)
SFR1,2,3,4, 5,6	87-021-498-01	Semi-fixed resistor, 47kΩ-B
		≪MIC/PHONE JACK CIRCUIT BOARD SECTION≫
PCB-F	82-397-605-01	MIC/PHONE JACK circuit board
J1,2,3	82-397-639-01	Jack ass'y (MIC, PHONES)
		≪LINE JACK CIRCUIT BOARD SECTION≫
PCB-G	82-397-662-01	LINE JACK circuit board
J5,6,7,8	82-399-609-01	JACK ass'y (LINE IN, LINE OUT)
		≪REC VOLUME CIRCUIT BOARD SECTION≫
PCB-H	82-397-607-01	REC volume circuit board
VR1,2	82-385-640-01	Volume, 50kΩ-A (REC LEVEL)
		≪LH BIAS VOLUME CIRCUIT BOARD SECTION≫
PCB-I	82-397-608-01	LH Bias volume circuit board
VR5	82-397-637-01	Volume, 1kΩ-B (LH BIAS FINE)

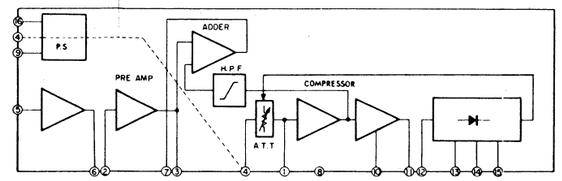
Symbol No.	Part No.	Description
		≪DME CIRCUIT BOARD SECTION≫
PCB-J	82-397-625-01	DME circuit board
DME1	82-397-642-01	DM-101
		≪HALL IC CIRCUIT BOARD SECTION≫
PCB-K	82-397-623-01	Hall IC circuit board
IC1	87-027-160-01	Hall IC, DN835
		≪DIN CIRCUIT BOARD SECTION≫
PCB-L	82-397-654-01	DIN circuit board
J4	82-380-616-01	DIN socket (DIN)
S18	82-380-610-01	DIN switch (FRONT/REAR)
		≪LAMP CIRCUIT BOARD SECTION≫
PCB-M	82-397-622-01	Lamp circuit board
PL1,2	82-380-705-01	Lamp 8V 55mA (DOLBY-NR, RECORD)
		≪LED CIRCUIT BOARD SECTION≫
PCB-N	82-397-624-01	LED circuit board
D1	87-026-086-01	Light emitting diode (ORG)
D2	87-026-083-01	Light emitting diode (RED)
		≪PLAY MUTING CIRCUIT BOARD SECTION≫
PCB-O	82-397-609-01	Play muting circuit board
S7	87-031-239-01	Slide switch (PLAY MUTING)
		≪FUSE CIRCUIT BOARD SECTION≫ = UK model only
PCB-P	82-397-650-01	Fuse circuit board
F1	87-035-131-01	Fuse, 100mA "T"
	87-098-006-01	Fuse label, 100mA "T"
F2	87-035-183-01	Fuse, 50mA "T"
	87-098-003-01	Fuse label, 50mA "T"
	87-032-744-01	Fuse clamp
S16	87-031-343-01	Slide switch (VOLTAGE SELECTOR)
		≪MISCELLANEOUS≫
T1	82-397-629-01	Power transformer (EE model only)
T1	82-397-630-01	Power transformer (UK model only)
RPH	82-372-676-01	Rec/Pb head
EH	87-046-088-11	Erase head

Symbol No.	Part No.	Description
M, PCB-Q	82-397-643-01	Motor ass'y
PL1	82-397-646-01	Pilot lamp 8V 50mA (CASSETTE)
SOL1,2	82-397-633-01	Solenoid (AUTO STOP, TIMER START)
LM1	82-397-644-01	Level meter A (LEFT LEVEL)
LM2	82-397-645-01	Level meter B (RIGHT LEVEL)
J9	87-032-849-01	Jack 2.5φ (PLAYER SYNC)
S9,11,12,13	87-031-362-01	Micro switch (PAUSE, REWIND CUE/REVIEW, MUTING, MOTOR)
S14	87-031-363-01	Micro switch (BIAS MUTING)
S15	87-031-382-01	Push switch (POWER)
S16	87-031-364-01	Slide switch (VOLTAGE SELECTOR) (EE model only)
S17	82-467-671-01	Slide switch (DIN OUT)
S19	87-031-377-01	Micro switch (CrO_2 AUTO)
F1	87-035-067-01	Fuse, 100mA "T" (EE model only)
	87-098-006-01	Fuse label, 100mA "T" (EE model only)
F2,3,4	87-035-144-01	Fuse, 250mA "T" (EE model only)
F3,4,5	87-035-145-01	Fuse, 250mA "T" (UK model only)
	87-098-010-01	Fuse label, 250mA "T"
F5	87-035-075-01	Fuse, 500mA "T" (EE model only)
	87-098-013-01	Fuse label, 500mA "T" (EE model only)
F6	87-035-134-01	Fuse, 500mA "T" (UK model only)
	87-098-013-01	Fuse label, 500mA "T" (UK model only)
	82-397-660-01	Fuse holder, 4P (UK model only)
	82-397-661-01	Fuse holder, 5P (EE model only)

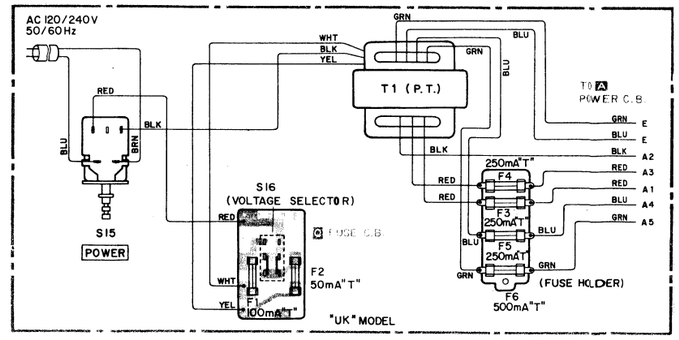
IC BLOCK DIAGRAM DN835



IC BLOCK DIAGRAM NE545B

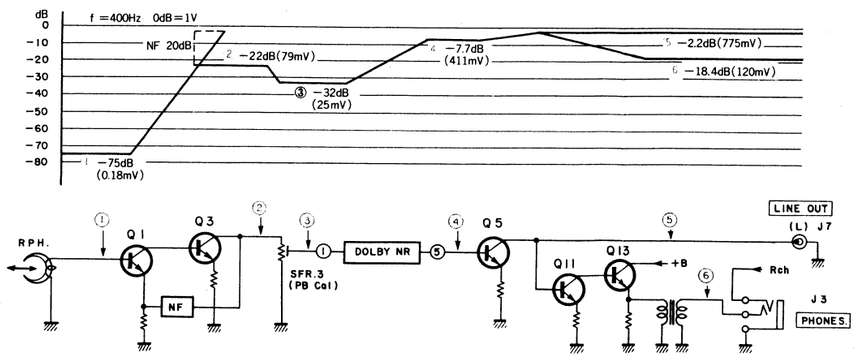


POWER CIRCUIT BOARD



LEVEL DIAGRAM

- **Playback**



- **Recording**